WHAT IS CLAIMED IS:

- 1. A masticating agent for the mastication of natural and synthetic rubbers comprising dialkyl polysulfides.
- 2. A masticating agent according to Claim 1, wherein said dialkyl polysulfides are those of the general formula:

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 R^1 to R^3 are identical or different and represent a linear or branched C_1 - C_{18} alkyl radical or represent hydrogen and

- 15 x represents the numbers 2 to 5.
 - 3. A process for the mastication of rubbers comprising the step of mixing said rubbers with a masticating agent, wherein said masticating agent is a dialkyl polysulfides.
 - 4. A process according to Claim 3, wherein said dialkyl polysulfide comprises the general formula

$$R^{2}$$
 C
 C
 R^{3}
 R^{3}
 R^{3}

wherein

 R^1 to R^3 are identical or different and represent a linear or branched C_1 - C_{18} alkyl radical or represent hydrogen and

x represents the numbers 2 to 5.

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5. A process according to Claim 3, wherein said dialkyl polysulfides comprise amounts of 0.1 to 10 phr, based on the total amount of said rubbers to be masticated.

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6. A process according to Claim 3, wherein said rubbers are selected from the group consisting of natural rubber (NR), styrene/butadiene copolymers (SBR), acrylonitrile/butadiene copolymers (NBR), ethylene/propylene copolymers (EPDM) and fluorohydrocarbon rubbers.

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7. A process according to Claim 6, wherein said rubbers are selected from the group consisting of natural rubber and styrene/butadiene copolymers.

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8. A process according to Claim 3, wherein said dialkyl polysulfides are used in conjunction with metal-containing heterocyclic ring compounds.

9. A process according to Claim 3, wherein prior to mixing with said rubbers, said dialkyl polysulfides are absorbed onto a solid inert carrier.

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10. A process according to Claim 9, wherein said solid inert carrier is selected from the group consisting of carbon blacks, dispersed silicas and silicates, metal oxides, metal carbonates, metal sulfates, metal hydroxides, and organic carrier materials.

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11. A process according to Claim 10, wherein said solid inert carrier is selected from the group consisting of silica and carbon black.